

long. '6 in. wide; valves thinly coriaceous puberulous, not sinuate between the 8-10 ovate seeds which have long axes parallel with sutures, '7 in. long, '4 in. wide, compressed; testa thin crustaceous.

A very distinct species, nearly related to *P. bigeminum* Mart., but with much larger flowers and with a pod that differs markedly in being long stalked.

ADDENDA.

24. CARAGANA LAMK.

5b. CARAGANA DECORTICANS *Hemsl.* in *Hook. Icon. Plant.* t. 1725.

When arranging the *Caraganas* of the Calcutta Herbarium the writer unfortunately overlooked the fact that his friend Mr. Hemsley had already detected Dr. Aitchison's misidentification of this plant with *C. ambigua* and had published a description and figure of it under the above name, which must therefore replace the name *Caragana Aitchisoni*, used on page 372.

75. PACHYRRHIZUS RICH.

PACHYRRHIZUS ANGULATUS *Rich.*

Professor Oliver has recently given an excellent figure and description of this well-known plant (*Hook. Icon. Plant.* t. 1842). In the same work (t. 1843) is also given a figure and description of the S. American and W. Indian *P. tuberosus* Lamk., which is closely related to *P. angulatus* and is best distinguished by its almost entire leaflets and its larger broader pods. It has recently been introduced to Ceylon; its pods make an excellent vegetable; its seeds are poisonous.

P. tuberosus is related to *P. angulatus* exactly as *Phaseolus Mungo* is to *P. radiatus* and as *Dolichos lignosus* is to *D. Lablab*.

 Noviciæ Indiæ XVI. *More additional species of LABIATÆ.*—By

D. PRAIN.

[Received May 26th; Read June 2nd, 1897.]

Since the writer presented descriptions of some additional species of this natural order to the Society, six and a half years ago, a few others have come to light that are additions to the Indian flora; descriptions of these, drawn up after the style of the *Flora of British India* are accordingly offered in the hope that they may be of use to members who use that work in the field.

12. POGOSTEMON DESF.

6. POGOSTEMON PARVIFLORUS *Benth.*

Add to localities of *F. B. I.*:—ANDAMANS; common, *King's Collectors!*

9. *POGOSTEMON PATCHOULI* *Pelletier.*

Granting that Pelletier's plant is specifically the same as *P. Heyneanus* Benth., which is what is contended in the *F. B. I.* iv. 633, then Bentham's name, dating as it does from 1830, cannot very well be supplanted by that of Pelletier which only dates from 1845. It may well be that the Patchouli plant, *P. Patchouli* Pelletier, is no more than a cultivated state of *P. Heyneanus*; the latter, however, is a common wild species without the Patchouli smell and with somewhat different leaves. The Patchouli is by no means a "common" garden plant in India; where its cultivation is attended to, it is said to be carefully grown along with *Piper Betle*. This cultivation is apparently confined to the Indian Peninsula; the plant flowers freely and profusely.

VAR. *suavis* Hook. fil. This, which is *Pogostemon Patchouli* of Sir W. Hooker as opposed to that of M. Pelletier, is also the *Pogostemon suavis* of Tenore; it has, as Sir Joseph Hooker points out, a close affinity with *P. parviflorus*,—a wild plant that does not have the Patchouli smell. It bears in fact to *P. parviflorus* exactly the relationship that *P. Patchouli* bears to *P. Heyneanus*, and unless *P. Heyneanus* and *P. parviflorus* be themselves no more than forms of one species, a view in favour of which something might be said, it seems for the present better to keep *P. suavis* specifically apart from *P. Patchouli*. The writer, however, cannot find any character to separate *P. suavis* Ten. (*P. Patchouli* Hook. *not of Pelletier*) from *P. Cablin* Benth., of the Philippines.

The *Flora of British India* is careful to exclude from Sir William Hooker's *P. Patchouli* the citation *Pucha-pat* of Wallich in *Kew Journ.* i. 22; the place which *Pucha-pat* is to occupy is not noted. The point is of importance, because Wallich's *Pucha-pat*, which is quite distinct from the Indian *P. Patchouli* Pelletier, is the plant that mainly yields the Patchouli and the Patchouli products of commerce; to this end it is assiduously cultivated on a considerable scale by Chinese colonists throughout the Malay countries. It is not clear that it is grown in China itself or indeed that the plant is known there; on the contrary there is much to favour the belief that it is in China replaced by one or more plants yielding the same odour. Unlike *P. Patchouli*, the *Pucha-pat* of Wallich is very shy of flowering, if indeed it ever does flower. Plants for example that were introduced to the Royal Botanic Gardens at Calcutta in 1834 and that have been freely propagated by other means than by seed from that period onwards have never once flowered, though a succession of the ablest gardeners in India have during the past 60 years made the flowering of the Malayan *Patchouli* one of the objects of their lives.

Familiar acquaintance with the living *Pucha-pat* and a careful examination of the specimen of Sir William Hooker's plant in Herb. Kew, has convinced the writer that Sir William Hooker was absolutely right and that Wallich's *Pucha-pat* is only, at best, a cultivated race of Sir William's *P. Patchouli* which is, however, merely Tenore's *P. suavis* and is certainly not Pelletier's *P. Patchouli*.

The Patchouli smell is not confined to these two plants or even to the genus *Pogostemon*. Among Indian genera it is shared by *Mesona*, and in China it is associated with at least two species of the genus *Microtoena*, one of which, *M. robusta*, is employed on this account much as the Indian, or true, *Patchouli* is. That the other, *M. cymosa*, is so used has not been made clear; this latter plant occurs in Indo-China and in most cases is only doubtfully wild. It is not *always* Patchouli-scented, but when it is so scented it is apt, though it flowers freely, to produce only abortive fruits.

7. ORTHOSIPHON BENTH.

* * *Calyx-throat naked ; stamens included.*

6. ORTHOSIPHON RUBICUNDUS *Benth.*

VAR. ? *macrocarpa* VAR. *nov.* ; leaves petioled, lamina very large 25–30 cm. long, 12–16 cm. across, calyx in fruit 15 mm. long, 7 mm. wide ; petioles 5–7 cm. long.

BURMA ; Attaran, *Brandis* 856 !

This is almost certainly specifically distinct, though it is evidently most nearly related to *O. rubicundus* VAR. *rigida*. The flowers in the specimens seen are not good and it is inadvisable for the present to give the plant a specific status. The writer feels inclined to restore to VAR. *rigida* the specific rank claimed for it by Hamilton.

* * * *Calyx-throat naked ; stamens far exerted.*

9b. ORTHOSIPHON WATTII *Prain* ; leafy-stem puberulous 4-angled short, the portion above leaves elongated, glabrescent subterete ; *leaves* decussately paired, pairs 4, the lowest small usually evanescent the second pair very large long-petioled much exceeding the 2 upper pairs, lamina irregularly cordate with subacuminate apex and irregularly crenate-serrate and acutely lobed margin, rather thick, sparsely puberulous above with adpressed brown hairs, beneath more faintly puberulous only along the nerves, racemes simple or subpaniculate at the end of leafless stem, bracts broadly cordate-acuminate, in young inflorescences overlapping to form a narrow strobilate spike, much exceeding pedicels ; *calyx* puberulous campanulate, 2 lower teeth subulate ; *corolla-tube* slender not twice as long as calyx, lower lip concave, upper 3-fid., filaments naked $2\frac{1}{2}$ times as long as corolla ; *nutlets* not seen. *Orthosiphon* sp. *Prain, Journ. As. Soc. Beng.* lix. 2. 296.

ASSAM ; Manipur, *Watt* n. 7188 ! Naga Hills, at Konomo, *Watt* n. 11558 !

Rootstock woody ; leafy stem 6–10 cm. long with short branches in the axils of the 3 upper pairs of leaves, internodes about 1.5–4 cm., petioles of the large pair of leaves 8–10 cm., laminae 45 cm. long, 30 cm. across, of other pairs much smaller ; stem between leaves and flowers 20–25 cm. long ; racemes simple terminal 6–10 cm. long or with 1–2 pairs of similar lateral racemes in axils of larger bracts at intervals of 1–3 cm. below base of terminal raceme ; whorls 6-fid., only .05 cm. apart, bracts 7 mm. long, 8.5 mm. wide, puberulous externally, glabrous above, margins not ciliate, pedicels 1 mm. long ; *calyx* 5 mm. long ; *corolla* tube 7–9 mm. long uniformly pubescent externally as are the lips, filaments inserted below apex of tube, 25 mm. long, stigma clavate subcapitate slightly notched.

Dr. Watt, who originally collected this very fine species, has again met with it in the Naga Hills and has presented an excellent flowering specimen to the Calcutta Herbarium from which it has been possible at last to make a complete description of the plant.

Though belonging to the group that includes *O. scapiger*, *O. stamineus* and *O. Parishii* it is, as the description will indicate, remarkably distinct from all three. It has somewhat the *facies* of a *Coleus* but the stamens are quite free and the stigma is not bifid.

8. PLECTRANTHUS L'HERIT.

§ COLEOIDES (*F. B. I.* iv. 621).

28*b*. PLECTRANTHUS KUNSTLERI *Prain*; rather stout, everywhere finely puberulous, leaves pale-green, large, petioled, ovate-acute with entire cuneate base and short entire sub-acuminate tip, margin elsewhere regularly crenate, cymes in stout branched panicles, corolla-tube exceeding the narrow lower lip, fruiting calyx rather large, two lower teeth subulate, two lateral ovate-acute, upper orbicular-ovate, nutlets oblong brown with darker tips, hardly shining.

PERAK; Kwala Dipong, *Kunstler* n. 8240!

A shrubby plant 2-3 feet high. *Leaves* pale-green especially beneath and there sparsely glandular puberulous, darker and similarly faintly puberulous above, laminae 8-12 cm. long, 4-5 cm. wide, petiole 4-5 cm. long. *Panicle* large, branches ascending, flowers racemed. *Fruiting calyx* 5 mm. long, gland-dotted. *Corolla* pale-green faintly dotted, 10 mm. long, tube decurved and gibbous at base, one and a half times as long as boat shaped lower-lip; upper-lip rather short. *Filaments* free from each other from the point at which they are free from the corolla tube.

A very distinct species though nearest, on the whole, to *P. urticifolius*.

30*b*. PLECTRANTHUS FULVESCENS *Prain*; erect, branched, the inflorescence hirsutely fulvous-tomentose elsewhere glabrescent, leaves lanceolate margin finely crenate except at the narrow-cuneate base decurrent on the longish petiole, flowers whorled in long slender narrow racemes, corolla tube slender, longer than the lower lip, fruiting calyx densely fulvous with spreading hairs, two lower teeth acute, two lateral ovate faintly serrate, upper entire broad rounded, nutlets oblong, brown, shining. *Coleus fulvescens* *Kurz MSS.* in *Herb. Calcutta*.

BURMA; Attran, *Brandis* 811!

Stem 4-angled glabrous below. *Leaves* faintly puberulous above, glabrous beneath, pale-green, membranous 10-15 cm. long, 4 cm. wide, tapering from the middle to an acuminate tip and a narrow cuneate base passing into a petiole 1-3 cm. long. *Racemes* 10-16 cm. long, 2 cm. in diam., leafless, rather dense-fl., rachis very hirsute with spreading tawny hairs, whorls 6-fl., flowers pedicelled. *Fruiting calyx* 6 mm. long slightly contracted above the nutlets. *Corolla* 8 mm., tube declinate, curved, apparently white, lips pale-blue.

The whorls of flowers somewhat resemble those of *Coleus spicatus* but they are more distant. Mr. Kurz has placed this in *Coleus* but the filaments are quite free from each other from the point where they are free from the corolla tube. The arrangement, however, below this point is such as to strongly support the view expressed by Sir Joseph Hooker (*F. B. I.* iv. 616) that at least all the species of

§ *Coleoides* might with advantage be merged in *Coleus*. This, to judge from his proposed treatment of the species, must have been the view of Mr. Kurz also.

9. COLEUS LOUR.

1. COLEUS SPICATUS *Benth.*

Add to localities of *F. B. I.*:—BURMA; Shan Hills, common, *Collett! King's Collectors!*

6. COLEUS ATROPURPUREUS *Benth.*

Add to localities of *F. B. I.*:—PERAK; Jenah, 200–300 feet, *Wray 1759!*

10.* HYPTIS JACQ.

3. HYPTIS PECTINATA *Poit. Ann. Mus. Par.* vii. 474; erect; stem glabrous or pubescent; leaves petioled ovate crenate-serrate, base rounded, tomentose beneath; cymes many-fl. paniculate, in flower laxly subcapitate, later elongated subsecund pectinate incurved, bracts laxly setaceous hardly as long as calyx; calyx tubular, hoary-tomentose, mouth truncate, throat villous within, teeth setaceous subrigid, shorter than tube. *Benth.* in *DC. Prodr.* xii. 127. *Bysteropogon pectinatum L'Her. Sert. Angl.* 19. *Mentha perilloides Linn. Syst.* ed. xii. 736. *Nepeta aristata Rich. Act. Soc. Hist. Nat. Par.* 110. *Brotera persica Spr. Trans. Linn. Soc.* vi. 151, t. 4.

MADRAS; BENGAL; and ASSAM. Introduced; though not so frequently met with as *H. suaveolens*, where it does occur it is just as plentiful and spreads as readily.

Stem rigid below, branches erect 60–100 cm.; *leaves* very variable from 2–8 cm. long acute or acuminate, margins sometimes serrate more often crenate-serrate, sometimes rather widely crenate, usually densely tomentose below sparsely above but at times glabrous on both sides. *Racemes* secund densely congested towards apex, interrupted below, simple or paniculately branched. *Cymes* 5–30-fl., at first capitate, bracts and subulate calyx-teeth crinite. *Corolla* small pale-purple, or yellowish-white with the lips purple spotted. *Nutlets* small, oblong, smooth, black.

The reason for the introduction of the species of this American genus is in every case the same; they are planted like the *Tulsis* (*Ocimum* spp.) in the precincts of sacred buildings and are usually to be found spreading from the neighbourhood of shrines and temples. Up till now *H. brevipes*, *H. capitata*, *H. suaveolens* and *H. pectinata* are the only forms that have established themselves in India but the naturalisation of other species is no doubt merely a matter of time.

55. CYMARIA BENTH.

1. CYMARIA DICHOTOMA *Benth.*

Add to localities of *F. B. I.*:—SHAN HILLS; Fort Stedman, etc., common. PERAK; *Scortechini!*